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Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SEP 14 '88

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well ☐ gas well ☒ other

2. NAME OF OPERATOR

Robert N. Enfield

3. ADDRESS OF OPERATOR

P. O. Box 2431, Santa Fe, NM 87504

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)

AT SURFACE: 660' FNL & 660' FEL of Sec. 18

AT TOP PROD. INTERVAL:

AT TOTAL DEPTH:

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:

TEST WATER SHUT-OFF ☐

FRACTURE TREAT ☐

SHOOT OR ACIDIZE ☐

REPAIR WELL ☐

PULL OR ALTER CASING ☐

MULTIPLE COMPLETE ☐

CHANGE ZONES ☐

ABANDON* ☐

(other) P/A Cisco; Recomplete in Morrow

SUBSEQUENT REPORT OF:

☐

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17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Work to start on or about 9/13/88

See attached for details

5. LEASE

NM-A-32594

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Federal "18"

9. WELL NO.

1

10. FIELD OR WILDCAT NAME

McMillan Upper Penn Gas

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA

Sec. 18, T19S, R27E

12. COUNTY OR PARISH

Eddy

13. STATE

NM

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)

3271.2 CR

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

Subsurface Safety Valve: Manu. and Type

Set @ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED

Robert N. Enfield

TITLE Operator

DATE 9/4/88

APPROVED BY

CHIEF MINERAL RESOURCES

(This space for Federal or State office use)

TITLE

DATE

9-13-88

CONDITIONS OF APPROVAL, IF ANY:

RECEIVED

SEP 8 10 44 AM '88

**Attachment to United States Department of the Interior, Geological Survey, Form
9-331, dated September 4, 1988.**

General Procedure

1. Move in and rig up pulling unit (late Wednesday or Thursday AM); set a clean 500 bbl. frac tank to hold fluids, set a mud tank to collect drilling fluids and spent acid.
2. Remove well head and nipple-up 6" by 3000 psig manual BOP (2-3/8" pipe and blind rams); unseat packer and work through wrap-around; circulate hole if necessary to kill well.
3. Pull out of hole with tubing and packer; send packer to Baker for repairs.
4. Go in hole with a RTTS packer; set at 7500' KB.
5. Establish pump-in rate; squeeze cement perforation, leave at least 200 feet of cement in casing if possible. WOC.
6. Unload, rack and tally appx. 2000 feet of 2-3/8", EU, 8rd, 4.7#/ft. J-55 tubing (for upper portion of hole). Clean pin and coupling with a 50/50 mixture of diesel and chain (or motor) oil.
7. Move in and rig up reverse unit; pick up bit and collars and tubing and go in hole to top of cement.
8. Drill out cement; pressure test squeeze job, BOP and well head with 1500 psig.
9. Continue to go in hole to cement on top of CIBP at appx. 9613' KB. Rabbit each joint of new tubing with a swab no-go as it is picked up.
10. Drill cement and plug down to packing element; displace hole with clean 2% KCl water. Finish drilling plug and push to bottom.
11. Pull out of hole.
12. Go in hole with bit and casing scraper to PBD; work through squeeze interval several times to remove cement from casing.
13. Displace hole with clean 2% KCl water while circulating 250 gal. 10% acetic acid to spot.
14. Pull out of hole; lay down bit, scraper and collars.
15. Go in hole with 2-3/8", EU, 8rd, 4.7#/ft. J-55 completion assembly to appx. 9,650' KB.
16. Reverse circulate with 6 bbls. 2% KCl water.
17. Space out to set packer with 10-12,000# compression on packer when BOP removed and well head set.
18. Close pipe rams; pressure test packer with 1000 psig.
19. Remove BOP; nipple-up well head with wrap around in place.
20. Displace acid with 2% KCl water.
21. Swab and/or flow to clean up.
22. Rig up Schlumberger with full grease pack lubricator; perforate each of the following intervals with 2 shots per foot with 1-11/16" Enerjet guns:
 - 9685' to 9688' KB (7 shots)
 - 9712' to 9718' KB (13 shots)
 - 9725' to 9728' KB (7 shots)
 - 9734' to 9740' KB (13 shots)
23. Flow test.
24. Retreat with water block chemicals and/or acid with Nitrogen.
25. Flow to clean-up and test.
26. Return to production.

O'BRIANT ENGINEERING

P.O. Box 10487

Midland, Texas 79702

915-683-5511

915-683-3172

ROBERT N. ENFIELD
FEDERAL "18" NO. 1
EDDY COUNTY, NEW MEXICO

WELL DATA (As of December 23, 1986)

TOTAL DEPTH: 10,025' K.B. (Driller)
9,992' K.B. (Logger) ELEVATION: 3289' K.B.
3271' G.L.

K.B. TO G.L.: 18 feet

PLUG BACK DEPTH: 9613' K.B.

CASING: 5-1/2", 17#/ft., LT&C, bottom 44 joints N-80 casing, middle 151 joints J-55, top 45 joints N-80. Casing set at 10,025' K.B.

CEMENT: Cemented with 850 sacks Halliburton Class "H" cement with 5# KCL/sk., .5 of 1% Halad 22, .3 of 1% CFR-2, 1/4# flocele/sk., (1.18 cu.ft./sk yield, 15.2#/gallon weight). Displaced 90 barrels and started to bridge off, with 112 barrels displaced bridge off with 4500 psig hole full. Left 4000' cement in pipe. top of cement calculated at 8800'. During original completion of well drilled out cement in 5-1/2" casing to 9960'. Ran Bond Log, log showed good cement back to 9235'. Cemented with 760 sacks Halliburton Class "H" 50/50 Pozmix with 2% gel, 5/10 of 1% CFR-2 and 5#salt/sack, (1.27 cu.ft./sk yield, 14.3#/gallon weight). Temperature survey showed top of cement at 5800'.

PERFORATIONS: 7906' - 7908' (4JSPF) (8 holes) (Cisco)

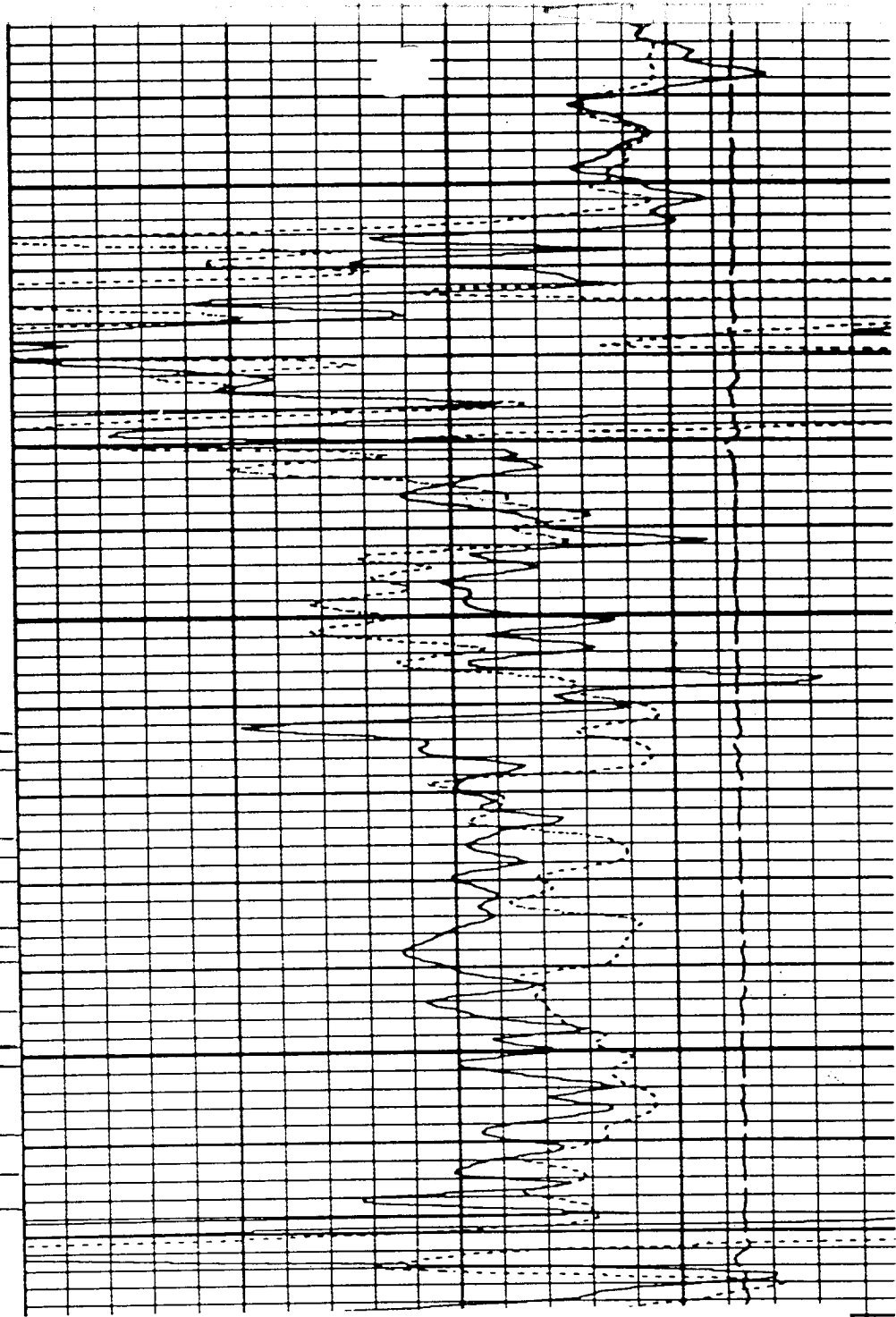
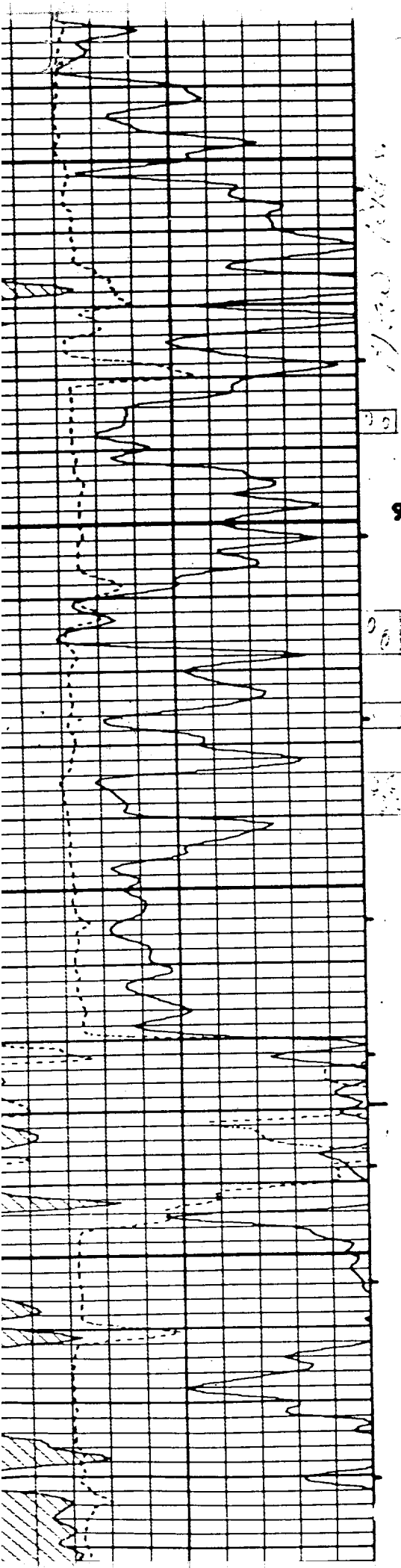
TREATMENT: 250 gallons 10% acetic acid to spot.
Treated with 1000 gallons 15% NEFE acid and 24,000 standard cubic feet of nitrogen.

TUBING ASSEMBLY:

1 - 2-3/8" X 5-1/2" Baker Loc-set packer	3.70'
1 - 2-3/8", 4.70#/ft., J-55, 8RD tubing sub	4.20'
1 - Baker E.L. on-off tool (1.625" I.D.)	5.34'
1 - 2-3/8", J-55, 4.7#/ft., 8rd, EUE, tubing sub	4.02'
246 - Joints 2-3/8", 4.70#/ft., J-55, 8 RD tubing	7795.63'
246 - Joints total	7812.89'
K.B. to G.L.	18.00'
Packer set at	7830.89' K.B.

NOTE: 1.) Set packer with 15,000# compression.
2.) Top of Packer at 7827.19' K.B.
3.) Top of On-off tool at 7817.65' K.B.

This well was originally completed in the Morrow Formation from perforations 9713' to 9769' in July, 1982. For further information see well reports.



O'BRIANT ENGINEERING

P. O. BOX 10487
MIDLAND, TEXAS 79702

980

TO:

ROBERT W. ENFIELD
FEDERAL "13" NO. 1
LEA COUNTY, NEW MEXICO

SCHLUMBERGER GR-CNL-FDC
(5/29/82)